VIA (SPECIFY AIR OR SEA POUCH) DISPATCH NO. MGQ-A-

SECRET
CLASSIFICATION

TO : Chief, EE

DATE: 19 March 1952

FROM : Chief of Station, Frankfurt

SUBJECT: GENERAL—

SPECIFIC— FRUENGEL Torpedo Exploder

REFERENCE: MGQ-W-12761; MGQ-A-1158

1. Commander T. Harper, Lt. Commander G. McKnight, and Mr. K. Eldredge arrived in Frankfurt from London on 25 February 1952. During the discussion with [ ], it became apparent that the [ ] specialists were not in a position to give Dr. FRUENGEL specific answers to the questions outlined in paragraph 2 of second reference, namely, availability of space in modern American torpedoes, type and voltage of current to be used, etc. They had been instructed by their headquarters to base any discussions with FRUENGEL on the specifications of the most modern World War II German torpedo. The three men proceeded to Hamburg accompanied by [ ].

2. Dr. FRUENGEL was contacted in a Hamburg hotel on 26 February at which time he gave a complete verbal description of the electrical and physical aspects of the exploder in sufficient detail to enable the [ ] specialists to make a report to their own headquarters. Since Commander HARPER was not in a position to make specific recommendations (as to dimensions, voltage, etc.) to permit the finished exploder units to be built into American torpedoes without alterations, it was decided to instruct Dr. FRUENGEL to begin construction using the specifications of World War II German torpedoes as his guide. (Commander HARPER explained to me on the side that it would no doubt be necessary to dismantel and reconstruct each unit completely before they can be built into American torpedoes for test purposes.)

3. With the above considerations in mind, the following decisions were reached:

a. To construct five exploder units complete with casings and electrical leads, and to construct one laboratory type unit for experimental purposes. The laboratory model can be used to test the other units.

b. To use German-made electronic tubes (similar in type to American tubes) and German-made resistors and capacitors.

c. To construct the exploder units to operate from a main direct-current power supply of 12 or 24 volts, depending upon the type of converters available on the German market. (FRUENGEL hopes to be able to purchase American Army surplus converters.)

d. To construct each exploder unit in five parts with the necessary connecting cable: transmitter, transmitter power supply, receiver, receiver power supply, and converter. This was decided in order to permit maximum flexibility in utilizing available space in American torpedoes. Each part will be constructed as small as possible.

e. To construct each exploder unit to operate at an optimum depth consistent with his experiments and tests run during the later part of World War II.

4. Dr. FRUENGEL told me he hoped to have the laboratory model finished in about two months (the last week of April). When completed, this model will be picked up from FRUENGEL's laboratory in Hamburg and shipped to Washington via DYCLEAN channels.

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